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Use of Seva Stress Release Acupressure to Reduce Pain, Stress, and Fatigue in Patients Hospitalized for Cancer Treatment

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Patients undergoing treatment for cancer often experience stress, fatigue, and pain during their treatment. Medical management of these symptoms can cause additional adverse effects, but it is possible that noninvasive complementary therapies may be able to reduce these symptoms without unwanted adverse effects. The purpose of this study was to assess the feasibility and impact of the Seva Stress Release acupressure protocol on stress, fatigue, pain, and vital signs of patients hospitalized for cancer treatment. Thirty patients receiving cancer treatment and experiencing stress, fatigue, and pain were recruited for the study. After obtaining informed consent, baseline data (survey and vital signs) were obtained, followed by administration of the Seva Stress Release. After the intervention, vital signs were obtained, and patients completed 2 additional surveys. After Seva, patient stress, fatigue, pain, heart rate, and respirations were significantly decreased ($P = .000$). Sixty-six percent of participants experienced symptom relief for at least 1 to 4 hours. Qualitative findings also indicated that patients reported better sleep and mental clarity after the intervention. The Seva protocol could be taught to nurses and be used as an independent intervention for patients experiencing adverse effects of cancer treatment, to promote comfort and reduce stress and fatigue.

KEY WORDS

acupressure, complementary and alternative medicine (CAM), fatigue, integrative, pain, stress, symptom

Stress, fatigue, and pain are common symptoms experienced by patients being treated for cancer. These are sometimes considered "symptom clusters" by cancer patients, leading to simultaneous instances of fatigue, insomnia, and discomfort.[1,2] Evidence indicates that a large majority of patients being treated for cancer will suffer from cancer-related fatigue (CRF) during or after treatment[3]; this greatly affects the quality of life, as patients feel they are unable to function, enjoy life, feel independent, and maintain well-being while experiencing symptoms.[4]

Acupressure is a complementary therapy that is based on the traditional Chinese medicine theory of energy pathways and the premise that restoring smooth flow of energy through these pathways can contribute to health and well-being, as well as reduction in physical symptoms.[5,6] Energy, called "qi," flows through channels called "meridians" that are believed to correspond to organs or body functions. The finger pressure applied to specific points on the meridians is thought to release energy in order for it to flow more freely, thus restoring balance in the body and relieving specific symptoms.[7] Because of the noninvasive nature of acupressure, there are few contraindications, and it is well suited for patients diagnosed with cancer who are placed on bleeding and neutropenic precautions.

Acupressure has been used to treat a variety of symptoms, with research demonstrating that it may be helpful in reducing stress, pain, anxiety, and fatigue among various patient populations.[8-11] One study in particular found that patients receiving cancer treatment reported significant reductions in fatigue after being taught and practicing self-acupressure.[12] A recently published systematic review explained that CRF causes are multifactorial, and patients who are too weak to participate in exercise regimens often benefit from caregiver-provided interventions such as acupressure and acupuncture for relief.[13] The review called for further research to increase evidence on the efficacy of both therapies and recommended that nurses be aware of their potential to manage CRF.

This study utilized a standardized acupressure protocol (the Seva Stress Release [SSR]) developed to specifically address the patient stress, fatigue, and pain experience. This protocol was developed after the World Trade Center tragedy to address the stress, anxiety, and fatigue symptoms of first responders and recovery personnel. Acupoints selected for the protocol specifically address those symptoms.[14] It has been taught to more than 1500 people worldwide[14]

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and has been used in a variety of settings with positive results.[10,15,16] The protocol is relatively simple and can be taught to health care providers in a daylong training format. The SSR is a full-body protocol that begins and ends at the feet. The entire body is addressed during the intervention, creating a balance between both the "stressed" and "relaxed" areas of the body.[14] The acupoint sequence is described in the Figure. Each point is held for approximately 6 to 8 of the patient's breath cycles with medium finger pressure. If any recipient reports pain at the point, the provider decreases the pressure accordingly. It can be provided to a patient in either seated or lying position within a 10- to 15-minute period.[14] The SSR has already been utilized to promote stress reduction and increased well-being in the inpatient setting, with hospitalized patients reporting reductions in pain and anxiety, as well as improved sleep.[10,16] However, to the investigators' knowledge, no research has been conducted specifically on its use in hospitalized patients undergoing treatment for cancer.

Purpose of the Study

The primary purpose of this study was to determine the impact of the SSR in reducing stress, fatigue, and pain in hospitalized patients undergoing cancer treatment at a large Mid-Atlantic teaching hospital. An additional purpose was to provide insight into the feasibility of the intervention's use in conjunction with established stress, fatigue, and pain management practices such as rest, medication, and patient-initiated relaxation techniques. Feasibility was evaluated based on the ease of recruiting patients, ability to perform the protocol in an inpatient setting, and the acceptance of the protocol by patients as evidenced by likelihood to recommend the intervention to another patient in the hospital.

The research questions were as follows:

1. What actions do hospitalized patients being treated for cancer take when experiencing stress, fatigue, and pain?
2. What is the feasibility of incorporating SSR acupressure into the treatment plan for inpatients receiving treatment for cancer?
3. Is SSR associated with a change in perceived stress, fatigue, and pain by inpatients receiving treatment for cancer?
4. Is there a difference in patient vital signs (heart rate, respirations, blood pressure) and pain and anxiolytic medication use after receiving SSR acupressure?
5. Are there perceived benefits from receiving SSR among hospitalized patients receiving treatment for cancer?
6. How long do the benefits (if any are identified) of SSR last?

Research hypotheses included the following:

1. Seva will be found to be a feasible integrated therapy when included with standard treatment for stress, fatigue, and pain.
2. Patient rating of stress, fatigue, and pain will be lower after receiving SSR than prior to treatment.
3. Patients will recommend use of SSR for other patients hospitalized for cancer treatment.
4. Patient vital signs (heart rate, respirations, and blood pressure) and use of pain or anxiolytic medication will be lower after receiving SSR than prior to treatment.

The primary investigator for this study is certified in clinical acupressure and also certified as an SSR instructor. The coinvestigator attended a daylong training session in administration of the SSR protocol and demonstrated competency and consistency in application of the protocol prior to the beginning of the study.

METHODS

Design, Participants, and Setting

The study incorporated a quasi-experimental pretest-posttest design. Patients eligible to participate in the study were hospitalized in either the medical oncology or bone marrow transplant unit of a large Mid-Atlantic teaching hospital. Potential participants were identified either by referral or upon consultation with registered nurses working on the oncology and bone marrow transplant units at the study hospital. Eligible patients were at least 18 years of age, diagnosed with a malignancy, hospitalized for treatment at least 3 days, able to speak and read English, not in contact isolation for infection or immunosuppression, and cognitively and medically stable. Patients isolated due to extreme immunosuppression were not eligible to participate because of potential risk of spontaneous bruising or bleeding during the intervention. In addition, potential participants must have been experiencing symptoms of stress, fatigue, and pain (at least 2 of the 3 symptoms). Staff nurses provided the patients with information on the study upon admission and asked them about the above symptoms at both admission and during the hospital stay, in order to provide referrals.

Procedures

Human participant approval was granted by the West Virginia University Office of Research Integrity and Compliance Institutional Review Board prior to the study. The investigators visited patients in their hospital rooms to present verbal and written information on the study, and patient desire to participate was assessed at that time. During the consent process, the investigators provided information on the right to withdraw at any time, any risks involved, potential

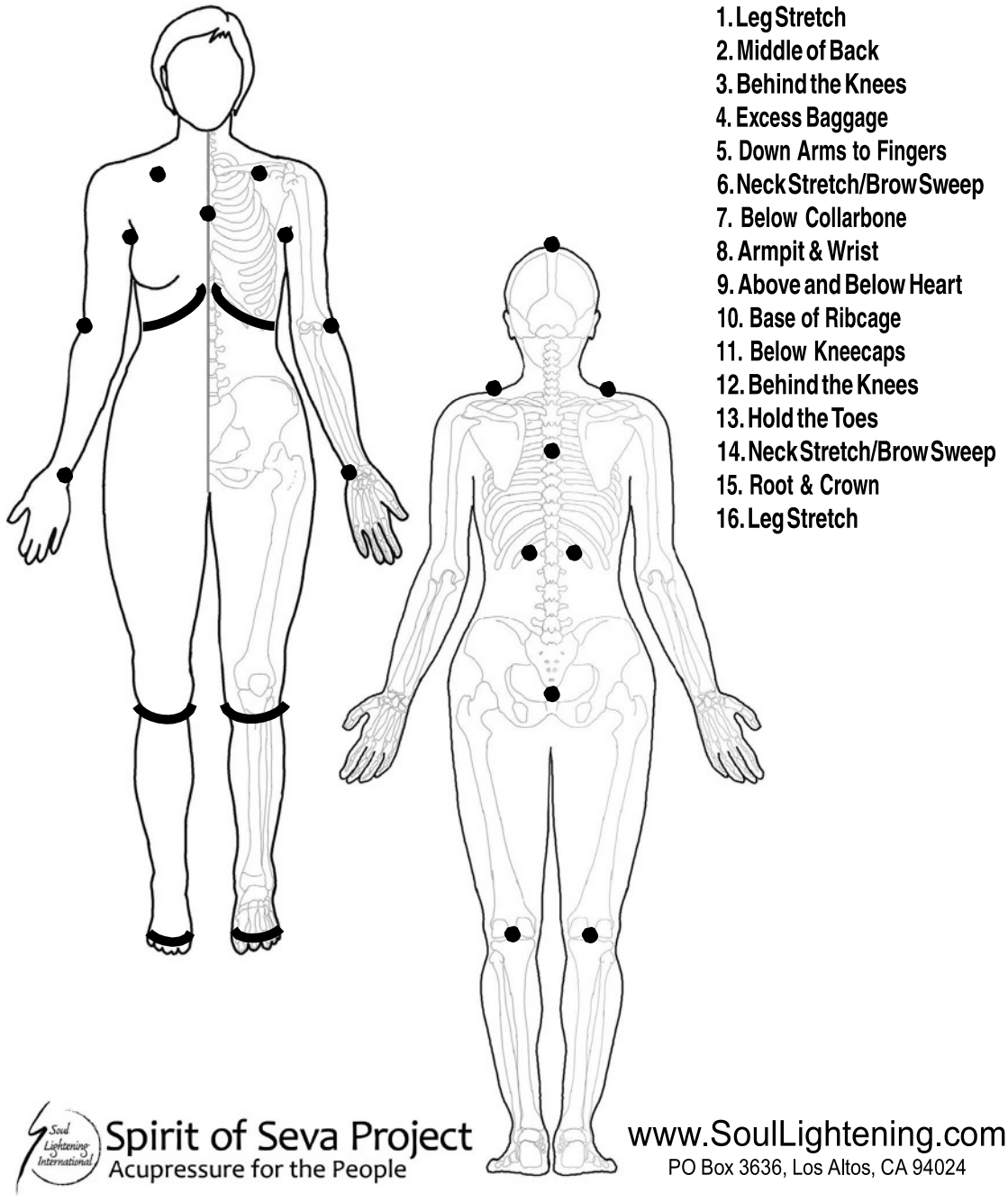

FIGURE. Soul Lightening Acupressure. The Seva Stress Release.

benefits, identity protection, and the Office of Research Integrity and Compliance contact information for concerns. The principal investigator's contact information was also provided.

Following the consent process, the investigators guided the participants through a preintervention survey (demographics, stress, fatigue, and pain levels) and collected pulse, breathing, and blood pressure measurements. The SSR acupressure protocol was then provided by either the primary investigator or coinvestigator, with soft music playing in the patient's room. Music was used to filter/block potential environmental noises common to the hospital setting that might distract patients from fully experiencing the intervention. The patient was allowed to control the volume as desired. It should be noted that the music may be a confounding factor in the impact of the intervention. The SSR acupressure intervention lasted approximately 15 minutes. Following the therapy, patients answered an

additional follow-up survey on stress, fatigue, and pain levels, and the investigator collected pulse, breathing, and blood pressure data again. A 24-hour postintervention survey was also administered for the participants to complete independently. Participants were given an envelope in which to insert the paper survey to encourage honest responses and anonymity.

Measures

Demographic variables included gender, age, and diagnosis. Participants were asked about actions they used to relieve stress, fatigue, and pain and if they had received any formal training in a relaxation method. Pulse was measured using a pulse oximeter or monitor. Blood pressure was taken either manually or via a monitor. Respirations were counted manually. Consistency in measurement was ensured by having the same investigator trained in measurement of the variables use the same instruments in both preintervention and postintervention measurements of vital signs.

A 0- to 10-point numeric rating scale was used both before and after intervention for patient rating of stress, fatigue, and pain levels because this a validated pain scale[17,18] and all patients at the study hospital are familiar with it for rating their pain. In addition, the same 0- to 10-point scale has been used in other studies to measure stress, fatigue, and mood.[19-21] This scale was also used to ask patients how helpful the SSR was in reducing these symptoms.

In addition, data on pain and anxiolytic medication dosages before and 24 hours after the intervention were collected. Data on medications taken prior to the intervention were collected immediately after performing the intervention, whereas the postintervention data were collected while the patients completed a survey about their experience for the previous 24 hours. Each patient was asked to describe in the 24-hour postsurvey if the SSR helped the patient's symptoms during the 24-hour period, how it helped, the actual duration of the improved feeling, and if the patient would recommend SSR to another patient in the hospital.

Data Analysis

SPSS version 21.0 (IBM Corp, Armonk, New York) was used for analysis. Paired *t* tests were used to compare preintervention and postintervention data. Descriptive statistics were used to describe study population characteristics. Narrative patient comments and notes were used to supplement the quantitative data.

RESULTS

Participant Demographics and Symptom Relief Activity

A total of 30 patients were enrolled in the pilot study. Power analysis indicated that, using a type 1 error rate of 0.05 and power of .80, 30 participants would be adequate to identify changes in the perceived stress, anxiety, and pain levels among study participants.

The patients' ages ranged from 31 to 86 years, with 18 patients older than 50 years. There were 18 women and 12 men enrolled, with 18 different cancer diagnoses. Some patients had more than 1 cancer diagnosis. The most common diagnoses were acute myeloid leukemia (n = 8), acute lymphoblastic leukemia (n = 4), lymphoma (n = 4), and breast cancer (n = 4). The majority of participants reported symptoms of stress (90%), fatigue (97%), and pain (77%). All patients expressed at least 2 of these symptoms.

Study participants engaged in 6 different activities to relieve stress (Table 1): distraction or other activity (40%), relaxation or rest (23%), avoidance (13%), anxiolytic medication (13%), meditation or prayer (10%), and deep breathing (7%). The patients who avoided stress described moving to another room if possible, getting away from the person or event causing stress.

Fatigue, a multifactorial cancer-related symptom,[22] was experienced by all but 1 patient at the time of the intervention. When asked to describe how they responded to fatigue, patients took naps (57%), lied down to rest (50%), pushed through the fatigue (7%), or practiced meditation and prayer (3%).

Study participants reported 9 different activities to relieve or manage their pain. Taking pain medication was most commonly reported, with 53% of patients indicating this response. Repositioning was performed by 26%, and heat application was performed by 20%. Rest/sleep was reported as a response to pain by 10% of patients, and physical therapy, deep breathing, ice application, and massage therapy were each reported by 7% of patients. One patient described that involvement in charity or interpersonal activity served as a pain distractor.

Most patients had never been taught or practiced any relaxation methods, with only 30% patients reporting specific therapies or activities. Five patients (17%) engaged in mindfulness/meditation or deep breathing exercises. Three patients (10.0%) listened to music or performed yoga/exercise. Finally, aromatherapy and progressive muscle relaxation were mentioned each by 1 patient (3%). To determine if these patients' previous experience with relaxation methods confounded the impact of the SSR on symptom relief, a separate data analysis was conducted apart from the remainder of the participants. This analysis demonstrated that prior learning of relaxation methods did not contribute to a significant difference in patient response after SSR.

Reported Pain, Stress/Anxiety, Fatigue, and Vital Signs

Patients reported significantly lower stress, fatigue, and pain levels after SSR treatment (Table 2). In addition, patient

TABLE 1 Reported Activities to Relieve Stress, Fatigue, and Pain

	n	%
Stress		
Distraction	12	40
Relaxation/rest	7	23
Avoidance	4	13
Anxiolytic medicine	4	13
Meditation/prayer	3	10
Deep breathing	2	7
Fatigue		
Nap	17	57
Rest	15	50
Push through	2	7
Meditation/prayer	1	3
Pain		
Pain Medication	16	53
Reposition self	8	26
Heat application	6	20
Rest/sleep	3	10
Physical therapy	2	7
Deep breathing	2	7
Ice application	2	7
Massage	2	7

heart rate and respiratory rate were also significantly lower after SSR (Table 2). In contrast, there were no significant differences in preintervention and postintervention systolic and diastolic blood pressure.

Medications

Overall, 11 of 30 patients (36.7%) received no pain or anxiolytic medications for 24 hours before or after intervention. Of the patients receiving pain or anxiety/sleep meds, in 16 instances, (53%) there was a reduction in the amount of medication over 24 hours from pretreatment to posttreatment. In 9 instances (30%), there was an increase in dosage of the medication, and in 6 (20%), there was no difference in the amount of medication taken. Because of patients being prescribed a variety of pain and anxiolytic medications at varied doses, it was not possible to analyze whether the change in medications from preintervention to postintervention was statistically significant. It is important to note that some of these analgesics and anxiolytic medications were "scheduled" doses, rather than as needed or PRN. An increase or decrease in dosage in these instances would not have occurred unless a PRN medication was also part of the regimen.

Duration of Benefits and Patient Perceptions

The most frequent patient report of the duration of their improved feelings after SSR was 1 to 4 hours (40%). One patient (3%) reported a feeling duration of 5 to 10 hours, and 6 (20%) reported more than 10 hours. Only 2 patients (7%) reported that the improved feeling was less than 30 minutes, and 8 (27%) had symptom relief for 30 to 60 minutes.

The average reported helpfulness of relieving stress was 6.7. Sixty percent of patients found a difference over 24 hours in their stress levels, and 53% noticed a difference in their mood lasting more than 24 hours. Patients often described having a sense of relaxation, calming, and mental clarity. One patient reported that "things that would have normally caused stress were much less stressful," and another, "I seem a little happier today." Yet another described a situation that normally would have caused her undue anxiety if it had not been for the intervention: "I immediately faced a dilemma when supper arrived.... It was a repeat of yesterday's lunch, but I was relaxed so I didn't stress. I just went ahead and ate the meal." A patient who received "bad news" during a phone call prior to the acupressure told the investigator that he completely forgot about the stressors after receiving the therapy.

The SSR was also found to be helpful in relieving fatigue, with an average rating of 6.0 on a 0- to 10-point scale. Fifty-three percent of patients reported that this protocol made a difference in their fatigue over a 24-hour period, and 53% stated it made a positive difference in their sleep: "I slept better last night than I have in 3 days... slept longer... slept better than the night before... helped me relax so I could sleep." Another said that he "slept for 4 to 5 hours straight last night and woke up clear headed, which is very unusual." In 2 instances, patients fell asleep during the intervention. Others described it as "just enough to make them feel relaxed" but not so much as to feel even more fatigued to fall asleep. In the 2 instances that patients rated fatigue higher or the same after acupressure, they stated it was due to an enhanced state of relaxation. One patient described it as "Before I felt sluggish. I am now relaxed and peaceful; any longer and I would have been asleep."

Participants reported average helpfulness of the intervention in relieving pain was 7.0, and 63% felt that the intervention helped to reduce their pain over a 24-hour period. In some instances, the SSR was able to relieve pain

TABLE 2 ***t* Test Comparisons Before and After Acupressure**

	Pre-SSR Mean (SD)	Post SSR Mean (SD)	*t* (*df*)	*P*
Stress (0- to 10-point scale)	5.53 (3.00)	2.43 (1.99)	7.44 (29)	.000[a]
Fatigue (0- to 10-point scale)	5.82 (2.32)	3.27 (2.49)	6.13 (29)	.000[a]
Pain (0- to 10-point scale)	3.67 (2.79)	2.20 (2.28)	5.43 (29)	.000[a]
Heart rate	82.60 (15.00)	78.17 (14.34)	4.89 (29)	.000[a]
Respiratory rate	19.87 (4.02)	16.23 (3.40)	7.45 (29)	.000[a]
Systolic blood pressure	119.27 (16.81)	118.50 (15.97	0.45 (29)	.65
Diastolic blood pressure	68.87 (12.49)	70.57 (13/01)	−1.50 (29)	.14

[a]*Statistical significance at P* = .05.

that previous interventions were unable to relieve such as back pain, hip tension, and headache. One patient described that her hips are normally very sore, but they no longer were after the SSR. Furthermore, another patient told an investigator that she was unable to find headache relief until the SSR intervention. Yet another patient said that no other intervention, not even hydrocodone, relieved his pain as quickly as the acupressure session. Patients overwhelmingly described that the relaxed sensation of the therapy and release of tension provided by the SSR were what provided them with feelings of analgesia.

Patients responded positively when asked if they would recommend the SSR to other patients in the hospital: 57% replied "very likely," 37% replied "probably," and 7% were "unsure." Several asked the investigators if they would return to do the therapy again for additional treatment, and 7 (23%) commented that they wished it was longer. One patient told the investigator, "I just wish you could stay here all day." Another woman described her experience as relaxing: "I didn't want it to end. I've been looking for something like this to heal my body. I felt with you." The majority, 77%, felt that the intervention was an appropriate length of time. Commonly reported beneficial acupoints were the leg stretch, middle of the back, behind the knees, excess baggage, and neck stretch/brow sweep, all areas where patients reported carrying the most tension (Table 3).

DISCUSSION

The goal of this pilot study was to determine the feasibility of the SSR as an intervention in the hospital setting and to evaluate its initial effects in reducing stress, fatigue, pain, and vital signs in hospitalized cancer patients. Although no actual measure of feasibility was used, the 2 researchers encountered few barriers to implementing the intervention. Many health care providers, including physicians and nurses, were receptive and appreciated the symptom management reported by the patients. The patients were interested in the study and often inquired if they would be able to receive the SSR after it was completed. Because the intervention itself takes approximately only 15 minutes or less, few interruptions occurred. This allowed for a complete environment of relaxation, a brief hiatus from an extremely scheduled treatment regimen often experienced by patients hospitalized for cancer treatment.

As hypothesized, stress, fatigue, and pain, as well as heart rate and respiratory rate, were all significantly reduced, indicating an enhanced state of relaxation. A decrease in blood pressure did not occur as hypothesized, but this can be partly explained by an already hypotensive or normotensive state in the patients. Mean systolic blood pressure was 120 mm Hg preintervention, and mean diastolic pressure was 69 mm Hg. These results are similar to another acupressure study in which heart rate, heart rate variance, and stress measures significantly decreased after acupressure interventions, but blood pressure was unaffected.[23]

During the instances in which patients described a stressful situation, they reported easier coping and decision making after receiving the SSR. Nearly two-thirds of patients experienced relief for approximately 3 hours or longer, in comparison to most opiate immediate release or short-acting medications that have an analgesic duration

TABLE 3 Perceived Benefits of SSR 24 Hours After Treatment

	n	%
Stress	18	60
Fatigue	16	53
Pain	19	64
Sleep	16	53

of 3 to 6 hours.[24] These preliminary results provide support for continuing research on the impact of the SSR on decreasing stress, fatigue, and pain, as well as improving sleep. Research has demonstrated that impaired sleep can affect how patients perceive their symptoms, their ability to withstand treatment, and overall quality of life.[22]

This pilot study has demonstrated that the SSR is feasible in an inpatient setting to reduce cancer-related stress, fatigue, and pain. It can be performed by nurses and other nursing personnel after participation in a daylong workshop to learn the protocol, followed by competency assessment. Because of its noninvasive nature, the SSR could be beneficial to patients with neutropenia because no skin, device, or other barriers are broken to provide symptom relief.

Limitations

Although promising, the study's results should be viewed considering identified limitations, including sample size and methodology. A sample size of 30 was adequate for a feasibility study, but future research should include more participants to determine if results are replicable. The study was a quasi-experimental design, without a control group. The addition of a control group and an attention control group would contribute to a more rigorous study. Furthermore, the timing of pain medications before and after intervention were not noted, so their pharmacological effects on symptom relief were not taken into account in relation to patient reports about the length of time of symptom relief after SSR. In addition, simply informing participants about the potential effects of this protocol during the consent process may have contributed to a placebo effect, priming participants to expect enhanced relaxation and stress/anxiety reduction. Use of music during the application of SSR may also have amplified the patient relaxation response to the SSR. Lastly, there were a few instances in which the acupressure session was interrupted either by a telephone ringing or individuals or care providers entering the patient's room, potentially disrupting the patient's relaxation response and reducing the impact of SSR.

Future Research

Further research is needed to evaluate the SSR using a randomized controlled design and larger sample size. Furthermore, providing multiple acupressure sessions over a course of days or weeks could provide insight into the cumulative effect of the intervention, as well as optimal timing for maximal effect. Such studies may include groups who receive the intervention for various numbers of sessions and at different times of day.

Additional research is also needed to evaluate how SSR affects analgesic and anxiolytic use among patients. More rigorous methods are needed to track scheduled versus "as needed" medications. Finally, this study should also be replicated in outpatient treatment centers.

CONCLUSIONS AND IMPLICATIONS FOR NURSING

The study results show that the SSR acupressure protocol is feasible to incorporate in the inpatient oncology therapy setting and may be effective in reducing stress, fatigue, and pain in hospitalized cancer patients. The SSR could provide patients with a nonpharmacologic modality of pain relief without the risk of constipation, nausea, vomiting, and other opiate adverse effects. Nurses can learn this protocol in a single, 1-day workshop, allowing them to provide patients with an additional potential means of symptom relief. Additional research would provide more clear guidance in use of acupressure for symptom relief among patients being treated for cancer.

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Use of the Seva Stress Release (SSR) Protocol with hospitalized patients receiving cancer treatment

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Study Purpose: To identify the feasibility of use and impact of the Seva Stress Release (SSR) acupressure protocol on stress, anxiety, fatigue, and vital signs of patients hospitalized for cancer treatment.

Background: Stress, pain, and anxiety are a symptom cluster experienced by cancer patients, leading to fatigue, insomnia, and discomfort.[1] Acupressure is a complementary therapy based on Traditional Chinese Medicine, which restores the smooth flow of energy to contribute to health and healing. Pressure is applied using the fingertips[2]. It is non-invasive with few contraindications, making it well-suited for patients diagnosed with cancer who may be placed on bleeding and neutropenic precautions. The Seva Stress Release is a standardized protocol developed to address stress, pain, and fatigue. It has been taught worldwide, and can be performed in 10-15 minutes with the patient in a sitting or lying position. The acupoint sequence is shown in Figure 1. It has already been utilized with cancer support groups and within hospitals[3,4].

Methods: This was a quasi-experimental pre-post intervention design without a control group. Thirty patients receiving cancer treatment on a Bone Marrow Transplant and Oncology unit at a Level I trauma center who were experiencing anxiety, stress, fatigue, and/or pain were recruited to participate in the study. After obtaining informed consent, baseline data (patient fatigue, pain, and stress levels measured using a 0-10 visual analogue scale, and vital signs) were obtained, followed by administration of the SSR protocol. All variables were collected again post-intervention. 24 hours post intervention, patients completed a survey describing their perceptions of the SSR.

Results: Thirty patients consented, age 31-86 years, (18 women, 12 men, 18 cancer diagnoses). Patients reported significantly less fatigue, pain, and stress after SEVA. Additionally, patient heart and respiratory rates were significantly reduced after the intervention. Most patients reported the results lasted at least 1-4 hours. Narrative patient comments indicated that several patients found the SSR helped them sleep better, helped them relax, and even helped with mental clarity. All but two patients stated they would probably or very likely recommend the therapy to other patients in the hospital.

Conclusion and Nursing Implications: Results of this pilot study indicate that the Seva Stress Release is feasible to incorporate in the inpatient oncology setting. It was statistically effective in reducing pain, fatigue, stress, and anxiety in hospitalized patients receiving cancer treatment. The SSR provides patients with another potentially effective modality of pain relief without the fear of opiate side effects. This intervention can be easily performed by nursing personnel as an adjunct or alternative to analgesics when patients experience pain. Furthermore, it may be used to enhance sleep, mental clarity, and quality of life for patients during hospitalization. Further research is needed to evaluate the impact of multiple Seva Stress interventions, as well as comparison of SEVA with attention control groups, and use of SEVA in outpatient settings.

Implications for Nursing: Nurses can learn this protocol in a single, one-day workshop, allowing them to provide patients with additional means of symptom relief

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Study Purpose

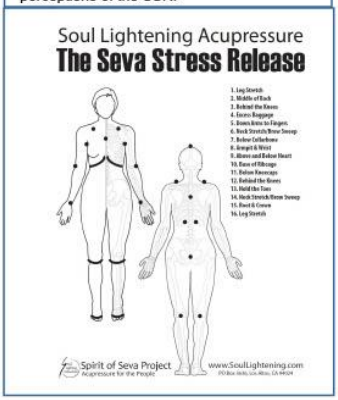
To identify the feasibility of use and impact of the Seva Stress Release (SSR) acupressure protocol on stress, anxiety, fatigue, and vital signs of patients hospitalized for cancer treatment.

Background

Stress, pain, and anxiety are a symptom cluster experienced by cancer patients, leading to fatigue, insomnia, and discomfort.[1] Acupressure is a complementary therapy based on Traditional Chinese Medicine, which restores the smooth flow of energy to contribute to health and healing. Pressure is applied using the fingertips[2]. It is noninvasive with few contraindications, making it well-suited for patients diagnosed with cancer who may be placed on bleeding and neutropenic precautions.
The Seva Stress Release is a standardized protocol developed to address stress, pain, and fatigue. It has been taught worldwide, and can be performed in 10-15 minutes with the patient in a sitting or lying position. The acupoint sequence is shown in Figure 1. It has already been utilized with cancer support groups and within hospitals[3,4].

Methods

This was a quasi-experimental pre-post intervention design without a control group. Thirty patients receiving cancer treatment on a Bone Marrow Transplant and Oncology unit at a Level I trauma center who were experiencing anxiety, stress, fatigue, and/or pain were recruited to participate in the study. After obtaining informed consent, baseline data (patient fatigue, pain, and stress levels measured using a 0-10 visual analogue scale, and vital signs) were obtained, followed by administration of the SSR protocol. All variables were collected again post-intervention. 24 hours post intervention, patients completed a survey describing their perceptions of the SSR.



Results

Thirty patients consented, age 31-86 years, (18 women, 12 men, 18 cancer diagnoses). Patients reported significantly less fatigue, pain, and stress after SEVA. Additionally, patient heart and respiratory rates were significantly reduced after the intervention. Most patients reported the results lasted at least 1-4 hours. Narrative patient comments indicated that several patients found the SSR helped them sleep better, helped them relax, and even helped with mental clarity. All but two patients stated they would probably or very likely recommend the therapy to other patients in the hospital.

Variable	Pre-SSR	Post-SSR	p-value
Fatigue	5.821	3.268	0.000
Pain	3.59	2.21	0.000
Stress	5.57	2.57	0.000
HR	81.93	77.43	0.000
RR	19.79	16.32	0.000

Duration of Relief	# Patients
1 hour	8
1-4 hours	12
5-10 hours	1
>10 hours	6

Symptom	Help Score
Fatigueq	5.95
Pain	6.96
Stress	6.7

Conclusion and Nursing Implications

Results of this pilot study indicate that the Seva Stress Release is feasible to incorporate in the inpatient oncology setting. It was statistically effective in reducing pain, fatigue, stress, and anxiety in hospitalized patients receiving cancer treatment. The SSR provides patients with another potentially effective modality of pain relief without the fear of opiate side effects.
This intervention can be easily performed by nursing personnel as an adjunct or alternative to analgesics when patients experience pain. Furthermore, it may be used to enhance sleep, mental clarity, and quality of life for patients during hospitalization. Further research is needed to evaluate the impact of multiple Seva Stress interventions, as well as comparison of SEVA with attention control groups, and use of SEVA in outpatient settings.
Implications for Nursing: Nurses can learn this protocol in a single, one-day workshop, allowing them to provide patients with additional means of symptom relief.